COTTON CHATS

FROM

DRAPER COMPANY

SHIPMAN'S
COMMON-SENSE BINDER

PATENTED

JANUARY 19, 1892. APRIL 19, 1904

To open binder, remove the slides from fasteners raise the fasteners to an erect position and then file papers. For punching: lay the papers on covers and mark sheets to correspond with fasteners.

If DUPLICATE is wanted ORDER 25981

ASA L. SHIPMAN'S SONS
MANUFACTURERS,
NEW YORK.

COTTON CHATS

By the Secretary of the

DRAPER COMPANY,

HOPEDALE, MASS.

No. 9. AUGUST, 1902.

FOREIGN INVESTIGATION.

We quote the following from a trade paper :

" It is stated that the report of the commission sent to the United States by the Northeast of Lancashire Manufacturers' Association to inquire into the capabilities of the Northrop loom and the general conditions of the trade, will not be made public. It certainly seems a strange decision to come to, but we don't think it will prevent some of the particulars getting into print."

If the committee discovered that we in the United States were ahead of the old country in certain lines by reason of improved machinery, it was certainly not good policy to advertise the fact.

CENSUS STATISTICS.

A census Bulletin No. 215, has appeared, dated June 28, 1902, on Cotton manufactures prepared under direction of Mr. S. N. D. North by Edward Stanwood, which contains very valuable information. While too long to be properly condensed within this circular, a few quotations are made which seemed of special interest to the writer.

Imports and Exports by ten year periods.

	IMPORTS OF BLEACHED AND UNBLEACHED COTTON CLOTH.	EXPORTS.	IMPORTS OF COLORED COTTON CLOTH.	EXPORTS.
1830	$2,716,037	$ 965,289	$ 4,356,675	$ 61,800
1840	918,203	2,926,457	3,893,694	398,977
1850	1,773,302	3,774,407	13,640,291	606,631
1860	1,164,207	1,403,506	25,934,004	3,356,449
1870	3,925,266	1,345,988	4,003,037	1,035,469
1880	1,020,277	5,834,541	1,179,999	2,956,760
1890	129,588	5,480,403	3,373,653	2,886,435
1900	357,604	13,229,443	8,156,301	4,839,491
HIGHEST				
1857	21,441,082			
1860			25,934,004	
1899		13,748,619		5,221,278

Any student of tariffs can certainly find good reason by dissection of the above, to see why cotton manufacturers should support Protection.

STATISTICS OF COTTON MANUFACTURING FOR 1900.

Number of establishments,	973.	Per cent	larger	than	1890		7.5
Capital,	$460,842,772.	"	"	"	"	"	30.2
Land,	$22,546,549.	"	"	"	"	"	2.9
Buildings,	$91,621,757.	"	"	"	"	"	31.4
Machinery, tools, etc.,	$181,009,280.	"	"	"	"	"	31.1
Cash and sundries,	$165,665,186.	"	"	"	"	"	34.7
Salaried officials, number,	4,713.	"	"	"	"	"	74.
Salaries,	$7,123,574.	"	"	"	"	"	105.6
Wage earners, average number,	297,929.	"	"	"	"	"	36.1
Men 16 years and over,	134,354.	"	"	"	"	"	51.2
Women 16 years and over,	123,709.	"	"	"	"	"	16.
Children under 16 years,	39,866.	"	"	"	"	"	70.1
Total wages,	$85,126,310.	"	"	"	"	"	28.9
Miscellaneous expenses,	$21,650,144.	"	"	"	"	"	29.5
Cost of materials used,	$173,441,390.	"	"	"	"	"	12.
Value of products,	$332,806,156.	"	"	"	"	"	24.2
Active spindles, number,	19,008,352.	"	"	"	"	"	34.
Labor cost per spindle,	$4.48.	"	"	less	"	"	3.8
Horse power used,	805,126.						
Looms,	450,682.	Per cent	larger	than	1890		38.7
Cotton consumed, bales,	3,639,495.	"	"	"	"	"	60.9
Cotton consumed, pounds,	1,814,002,512.	"	"	"	"	"	62.3

This does not include cotton small wares, which, however, make but 1.9 per cent. increase in value of products.

The facts to be noted from this table are plain.

1. Mills are being built of larger size than they were ten years ago, and either on real estate formerly owned or on cheaper land.

2. It apparently takes more capitalization to produce a given value of product, but the decrease in cost of raw materials more than explains the decrease in comparative value of the whole product. The bulk of product is much larger proportionally, to the capital invested than in 1890.

3. A notable increase is shown in the use of salaried men and a more notable increase in their salaries.

4. Wages seem to have decreased per operative but 1890 was a year of high wages. This is partially explained by the increase in the number of children included as operatives. More men, however, are now employed proportionately to women.

5. The cost of buildings and machinery and miscellaneous expenses naturally increase quite uniformly with the increase in capitalization. The machinery is notably more efficient in saving labor cost. Many other deductions might be made of interest.

COTTON MILL PRODUCTS, 1900.

ARRANGED IN ORDER OF YARDS WOVEN.

	SQUARE YARDS.	ROUGH PER-CENTAGE.	VALUE.	NUMBER OF LOOMS.
Total,	4,509,750,616	100	$243,218,155	450,682
Prints and converters cloths,	1,581,613,827	36	57,780,940	125,000*
Not finer than No.28 warp,	1,056,278,952		35,616,575	
Finer " " " "	525,334,875		22,164,365	
Sheetings and shirtings,	1,212,403,048	27	55,513,032	100,000
Ginghams,	278,392,708	6	16,179,200	25,000*
Napped fabrics,	268,852,716	6	18,231,044	44,227*
Fancy woven fabrics,	237,841,603	5	21,066,310	45,686
Drills,	237,206,549	5	11,862,794	30,000*
Twills and satteens,	235,860,518	5	14,301,302	28,839*
Ticks, denims and stripes,	171,800,853	4	16,446,633	18,000*
Duck, total,	129,234,076	3	14,263,008	15,000*
sail,	11,750,151		2,216,371	
other,	117,483,925		12,046,637	
Upholstery goods,	50,334,609	1	8,670,384	5,000*
Mosquito and other netting,	41,885,023	1	875,868	4,500*
Bags and bagging,	30,039,616		2,554,192	4,421
Cottonades,	26,323,947		2,791,431	2,500*
Corduroy, cotton, velvet & plush,	7,961,523		2,682,017	800*
Yarns, sewing cotton twine, tape and other products.			89,588,001	1,709
Total value of all products including above,			332,806,156	

*—Estimated. (The report only separates out the looms on certain lines.)

Comparing our total value of product ($332,806,156,) with total exports of manufactured cotton goods ($24,003,087,) it is seen that the latter is but little over 7 per cent. of the former. The latter value also includes certain values added by making the goods into articles of wearing apparel.

Of these goods we are weaving on Northrop Looms all grades of prints, sheetings, shirtings, have our warp stop motion on half the gingham looms, and have many looms running on napped fabrics, fancy weaves with dobbies, drills, twills, satteens, ticks, denims, duck, netting, bags and corduroy. In fact we can assuredly weave the goods which include 80 per cent. of all the looms running on cotton products. Even with our present orders filled we shall have only made a small start, especially as the number of looms that will be running when we have filled our orders will be much larger than these figures of 1900.

The report has the following to say of our loom:

"*The improved high-speed and automatic looms, many of which are put under the charge of one weaver, can be operated most efficiently by men.*"

This assertion is fairly open to argument.

"*The success of the Northrop loom has stimulated inventors to accomplish equally brilliant results by new devices of the shuttle-changing variety. Although there are some machines which effect the change with promising efficiency, they are yet in the experimental stage. . . .*

On the other hand, the Northrop loom which was first brought to the attention of manufacturers in April, 1895, has such self-evident advantages for the weaving of plain cloth that in less than five years, at the end of the year 1899, the output was more than 42,500 looms."

MULE VS. FRAME FILLING.

This same report illustrates the tendency of the preference in this line as follows:

SPINDLES.

1900		1890	
MULE.	FRAME.	MULE.	FRAME.
5,563,480	13,444,872	5,363,486	8,824,617

Actually but 199,994 more mule spindles in 1900 than ten years back. In the South where the large increase in new mills is noted, the figures are even more significant.

Mule spindles in Southern States	1900	180,534
Frame " " " " "		4,117,654

The compiler himself puts it as follows: " . . *substantially all the new spinning is frame spinning.*"

Thus have the predictions of our senior George Draper been distinctly verified. The introduction of frame filling was one of his primal objects and at the start no new endeavor ever met more adverse criticism and general discouragement.

Census figures are always of interest to the one who can note their lessons. The present figures show unmistakably that we are increasing, gaining a larger trade, and trending toward the doing of business on a larger scale with larger men. If the newer mills are typical of improvement —as they certainly should be—it is evident that the next census will show still more markedly the increased use of improved machinery and improved processes.

COTTON CHATS

By the Secretary of the

DRAPER COMPANY,

HOPEDALE, MASS.

No. 10. SEPTEMBER, 1902.

THE BRITISH NORTHROP LOOM COMPANY LIMITED.

In order to correct certain natural errors, recently published, it may be well to state that the Draper Company is not interested in the new corporation recently organized in England, as it never owned any rights in Foreign loom patents. The Northrop Loom company, organized in 1892, sold its United States rights to the Draper Company in 1897, but retained its outside business. It still retains many Foreign rights; in fact receives royalty from shops in Canada, France, Germany, Switzerland and Austria.

The new British company is capitalized at £150,000, the stock being fully subscribed and the control remaining with the Draper family. Its headquarters are at Manchester. The American directors are George A. Draper, Eben S. Draper and Alfred M. Coates. The English directors are all prominent manufacturers. Mr. William Livesey of Henry Livesey, Limited, the largest manufacturers of cotton looms in England, has been engaged as managing director.

A BRITISH VIEW.

The writer recently had an opportunity to look over a series of letters written to the Manchester Guardian, England, by their special correspondent, who visited our country last spring. Nothing recently published gives an equally clear and comprehensive view of the cotton industry from North to South by an outside, and therefore unprejudiced, party. This completed series would make a very interesting pamphlet for distribution. Among matters of interest, the following quotations are applicable to our own chief product:

"The mill contains, at present, 25,000 ring spindles and 800 Northrop looms. All the cloth manufactured is for export, and consists of two kinds only, namely—China

drills, and sheetings or shirtings. Drills are 30 inches wide, weigh 3 yards to the pound, and have 68 ends and 48 picks to the inch. The sheetings are 36 inches wide, are of the same weight as the drills, and have 48 ends and 48 picks to the inch. In both cases the yarns are 13.65s twist and 13.80s weft, the cuts are 120 yards long, and the piece rate for weaving is 13 cents a cut. The rate for weaving similar drills in Maine, I had found but a few days before, to be 58 1-2 cents for 120 yards, and that was less than the Lancashire rate. Here, the cheapness of the Southern labor and the use of the Northrop loom had enabled the superintendent to undercut the Maine weaving price by 75 per cent. One man who was running 24 looms told me that he could earn $1.35 per day; two other men were also running 24 looms each, and said they could make $1.50, . . . the tacklers tend 100 looms each."

The writer also refers to a statement made to him in Massachusetts to the effect that the Northrop loom is so easily managed than an inexperienced girl learned to run 14 of them within a week.

It is yet hard for many of our readers to comprehend the fact that weavers do run 24 Northrop looms. In one Southern mill the average of looms per weaver is 20. We started out seven years ago with the claim that a Northrop loom weaver could operate 16 print looms, and based all our figures of profit on this assertion. It seems we were conspicuously conservative.

NORTHROP LOOMS IN SOUTH CAROLINA.

The South is now taking the bulk of the new cotton machinery, and South Carolina is the most prominent Southern state in this respect. Over 43 per cent. of the looms there, including orders now placed, are from our works. The list as given is possibly subject to revision, as we may not be absolutely certain as to orders for new looms placed with other builders. We include in this list the orders placed with us for new looms.

It is interesting to note that of the 19 mills having 1000 looms or more, 14 have Northrop Looms as part of their equipment; 26 mills will have their entire equipment in Northrop Looms.

LOOMS IN SOUTH CAROLINA.

	TOTAL LOOMS.	NORTHROP.
Abbeville Cotton Mills,	940	940
Anderson Cotton Mills,	1864	724
Orr Cotton Mills,	700	700
Bamberg Cotton Mills,	248	
Middleberg Mills,	350	
Aiken Mfg. Co.,	766	16
Belton Mills,	1192	1192
Cherokee Falls Mfg. Co.,	548	
Camden Cotton Mills,	300	
DeKalb Cotton Mills,	260	
Norris Cotton Mills,	350	
Royal Bag Co.,	125	
Springstein Mills,	470	
Clifton Mfg. Co.,	3254	
Clinton Cotton Mills,	450	
Lydia Cotton Mills,	150	
Capital City Mills,	216	216
Columbia Mills Co.,	439	
Granby Cotton Mills,	1500	1014
Olympia Cotton Mills,	2400	2400
Palmetto Cotton Mills,	250	
Richland Cotton Mills,	700	
Cowpens Mfg. Co.,	264	
Darlington Mfg. Co.,	1116	
Easley Cotton Mills,	684	684
Edgefield Mfg. Co.,	328	
Enoree Mfg. Co.,	934	
Tyger Cotton Mills,	176	
Fort Mill Mfg. Co.,	423	
Milfort Mill Co.,	334	
Gaffney Mfg. Co.,	1401	1401
Limestone Mills,	300	300
D. E. Converse Co.,	1068	550
Graniteville Mfg. Co.,	1630	1630
American Spinning Co.,	672	672
Brandon Mills,	440	440
Huguenot Mills,	329	
Mills Mfg. Co.,	740	484
Monaghan Mills,	760	760
Poe Mfg. Co.,	1519	25
Greenwood Cotton Mills,	384	
Grendel Mills,	784	498
Victor Mfg. Co.,	684	684
Hartsville Cotton Mill,	300	300
Inman Mill,	408	
Saxe Gothia Mill,	240	
Lancaster Cotton Mills,	476	
Langley Mfg. Co.,	1300	
Laurens Cotton Mill,	1168	
Lexington Mfg. Co.,	204	
Liberty Cotton Mills,	170	
Lockhart Mills,	800	800
Valley Falls Mfg. Co.,	100	
Mollohon Mfg. Co.,	300	
Newberry Cotton Mills,	900	26
Courtenay Mfg. Co.,	638	
Orangeburg Mfg. Co.,	392	392
* Pacolet Mfg. Co.,	2202	222
Pelzer Mfg. Co.,	3400	2232
Piedmont Mfg. Co.,	1994	568
Reedy River Mfg. Co.,	372	153
Arcade Cotton Mills,	314	
Chicora Cotton Mills,	192	1
Highland Park Mfg. Co.,	786	
Manchester Cotton Mills,	300	
Victoria Cotton Mills,	272	
Seneca Cotton Mills,	432	
Arkwright Mills,	604	
Saxon Mills,	300	300
Spartan Mills,	2458	1748
Tucapau Mills,	1639	1639
Aetna Cotton Mills,	300	
Buffalo Cotton Mills,	1200	

	TOTAL LOOMS.	NORTHROP.
Monarch Cotton Mills,	360	360
Union Cotton Mills,	2300	
Walhalla Cotton Mills,	320	120
Colleton Cotton Mills,	136	
Warren Mfg. Co.,	900	900
Cheswell Cotton Mills,	350	
Glenn-Lowry Mfg. Co.,	675	675
Whitney Mfg. Co.,	720	384
Williamston Mills,	150	
Fairfield Cotton Mills,	400	190
Woodruff Cotton Mills,	312	312
Brogon Mills,	364	364
Toxoway Mills,	350	350
Ninety Six Mills,	300	300
Chiquola Mfg. Co.,	300	300
Total,	64,540	27,980

* The Pacolet Co. also have 1700 Northrop looms ordered for their Georgia mill.

As we have often asserted, **repeat orders** are the conclusive test. Looking back over former catalogues we find notices of sales printed as follows under the dates given. Comparison with the last column taken from the above list is certainly interesting.

	CATALOGUE OF			PRESENT FIGURES.
	1896	1897	1900	1902
Tucapau Mills,	320	468	469	1639
Pelzer Mfg. Co.,	1000	1000	1001	2232
Gaffney Mfg. Co.,	1040	1400	1401	1401
Spartan Mills,	1280	1362	1551	1748
Abbeville Cotton Mills,		304	940	940
Whitney Mfg. Co.,		250	373	384
Victor Mfg. Co.,		150	648	684
Granby Cotton Mills,		16	1014	1014
Anderson Cotton Mills,			240	724
American Spinning Co.,			320	672
Belton Mills,			700	1192
Brandon Mills,			320	440
Easley Cotton Mills,			320	684
Graniteville Mfg. Co.			1062	1630
Grendel Mills,			288	498
Warren Mfg. Co.,			801	900

Those who have noted the remarkable growth and prosperity of the Tucapau mills are asked to note also that this was the first mill ordering Northrop Looms and the order was for the straight print cloth pattern with which we had been experimenting in our own weave-room. The Pelzer Co. was another early customer whose recent increase speaks plainer than any other possible endorsement. The Gaffney Co., on their first increase, replaced perfectly good common looms which had only run a few years. The Spartan mills have always been one of our particular proofs of merit.

These earlier mills found our earlier loom successful in the primal intent of saving in labor cost. They made profits out of our first loom which they could not have earned with common looms—seven years of profit. What mills are going to lose the next seven years profits?